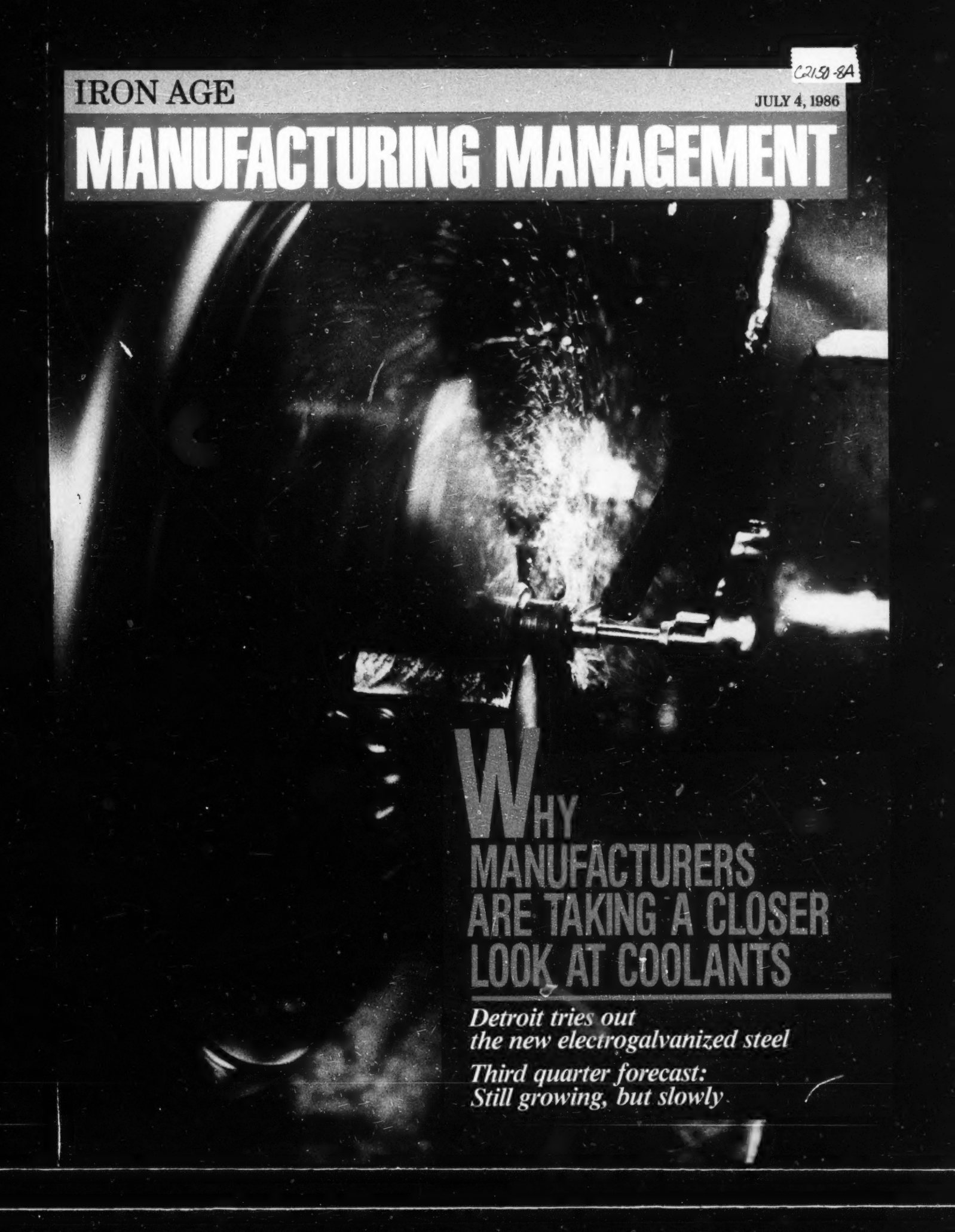




IRON AGE

C2150-8A

JULY 4, 1986

MANUFACTURING MANAGEMENT

WHY MANUFACTURERS ARE TAKING A CLOSER LOOK AT COOLANTS

*Detroit tries out
the new electrogalvanized steel*

*Third quarter forecast:
Still growing, but slowly*

IRON AGE
MANUFACTURING MANAGEMENT



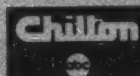
Cover Photo courtesy of General Electric Co.

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3RD QUARTER REPORT: TOUGH GOING IN A GROWTH ECONOMY

Business is on the climb, but at a slowed rate. The sluggish pace has hurt plant spending, already battered by record capital goods imports. Any growth for metalworking this year will be hard won.

BY JOHN D. BAXTER

Is the business expansion going to continue through this quarter and to year-end?

Economists, almost to a man, are shouting a resounding 'yes' to that question.

What's more, the seers see not only expansion through the rest of this year, but for all of next year as well. In fact, most see even better times in 1987.

All the glowing forecasts would seem to call for some loud cheering. But there are sections of the business grandstand where cheers seem muffled—or, are heard not at all.

Those sections are where capital goods producers sit. Along with energy goods producers. And along with suppliers to the agricultural sector.

Those elements in the economy, at best, have lately been growing at rates well below those of the overall economy. And, at the worst, they have been fighting to hold their ground, shaky as it is.

These lagging sectors of the economy have long held onto the straw of hope that as long as the economy grew strongly, there was a chance they eventually might be swept along in the rising tide. But that hope is now being put to a test.

The U.S. Commerce Dept. said the economy grew at 3.7 pct annu-

al rate in the opening quarter of the year. (The latest complete quarterly data compiled by the government). But, even that gain—from a tepid 0.7 pct prior-quarter rise—yielded growth of only 2.0 pct over the most recent four-quarter period. That compared to a 5.2 pct growth rate for the prior four-quarter period.

Other Factors

There are two other factors straining confidence of the lagers—and all others—right now.

First, the opening quarter 3.7 pct growth rate was not nearly as strong as it appeared. Almost all of the thrust came from a big increase in inventories. If the economy, in the first quarter, was measured by Final Sales (GNP less change in inventories), then there was no growth during the period. In fact, there was a slide of 0.7 pct.

The other point about the latest growth rate report that is worrisome is the fact that business capital investment declined by 13.6 pct from the previous quarter.

It is hard to see, at this time, just how business fixed investment can grow strongly through the rest of the year. This investment is now sagging, and the business expansion that has been its great hope for a revival, is showing signs of slowing.

Recently, the Conference Board's Forum of 13 economic an-

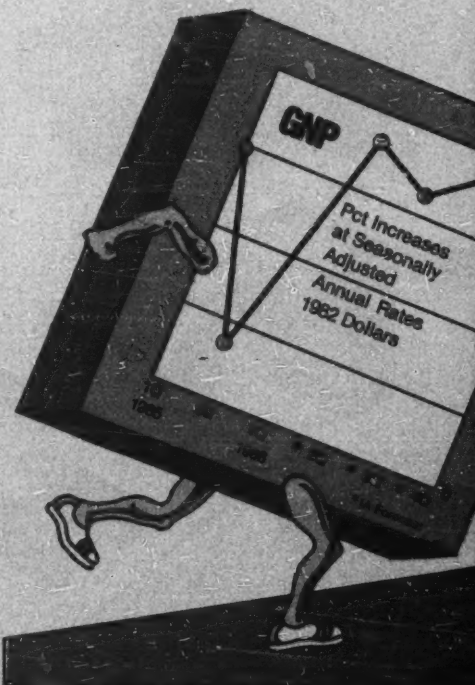
alysts forecast a growth in real GNP this year of 3.3 pct, and growth next year of 3.5 pct. Still, in the face of this rather rosy forecast, the Forum predicted a 3 pct decline in real capital spending.

This plant spending forecast came on the heels of one made in April by the U.S. Commerce Dept. based on its latest quarterly survey of thousands of business executives. This report forecast for 1986 a piddling 0.9 pct increase in real capital spending by business. (This would follow growth of 15.1 pct in 1984, and 7.5 pct in 1985).

Notably, in the Commerce Dept. survey, real plant spending by manufacturers this year is forecast to decline by 0.9 pct from last year. And more particularly, a decline of 2.9 pct is forecast for those manufacturers making durable goods.

Mixed Signals

One economist has noted that when economic signs become greatly mixed, it is a sign that a transition is about to take place in a business cycle. If his theory holds up, an economic shift could



be in the making; signs are really mixed right now.

A case in point on mixed signals: There are two leading quarterly surveys of consumer buying attitudes—those of the University of Michigan's Institute for Social Research (ISR), and The Conference Board. In a release dated May 30, the ISR reported consumer buying attitudes at "record high levels." The Conference Board, in a release dated just five days later, reported, "...the largest dip in consumer confidence in a year," and that "buying plans fell sharply."

There seems to be wide agreement that these are especially tough days to get a handle on the economy. One reason is that, to an unusual degree, a mix of short-term business cycle forces and long-term structural trends are each exerting leverage on the U.S. economy at the same time.

For example, the short-term business cycle is in an expansion phase—and has been since November of 1982. But, at the same time, a number of key manufacturing industries are in a long-

term phase of restructuring and contraction. That collision of forces partly explains the lag in capital investment that is taking place in the middle of a short-term business expansion cycle.

There is a long list of factors that account for the plant spending slowdown—a slowdown that has backed up to affect a great many metalworking companies. First and foremost, has been foreign competition.

For example, as recently as 1970, some 6 pct of capital goods bought in this country were imports. Last year, 20 pct of all capital goods bought in this country were imports. By any standard, that's a huge loss of market share for U.S. capital goods producers over a relatively short period of time. In itself, it is almost enough to explain why U.S. capital goods producers are having lean days while an economic upcycle is in motion.

The list of reasons why plant spending has not, and is not, doing well, goes on. Orders for in-

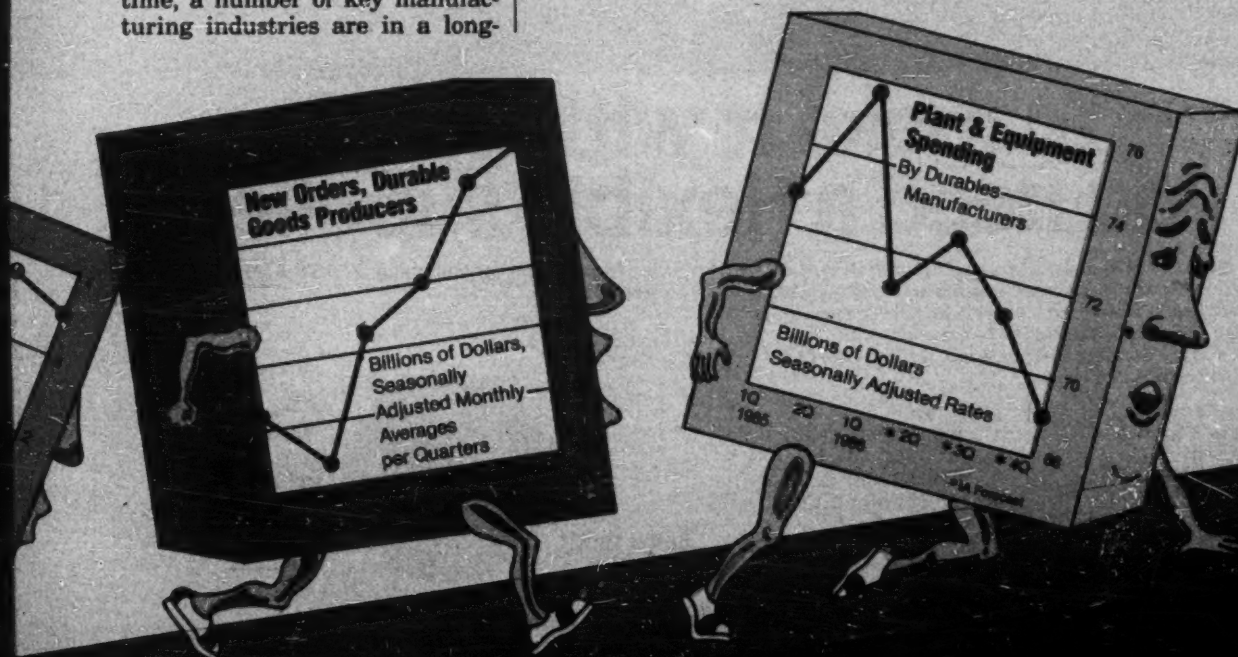
dustrial durable goods have been on plateau for a long time, industrial production has had little steam in it since the summer of 1984 and plant utilization rates are running at below-par levels.

It all adds up that basic goods industries, which are the ones most affected by capital investment slowdowns, are now caught in an economic setting that foretells little growth through the end of this year.

What could change this possible scenario for the better?

Well, for one, the hard-to-predict consumer, for reasons of his own, could take off on a spending spree. Or, possibly, the settling of the tax bill could unleash a lot of held-in-check business spending. Or, the big shifts in world currency exchanges could stem the foreign competition onslaught.

The current business up-cycle has been a durable and a resilient one, with quarterly growth ranging from 0.6 pct to more than 11 pct. It might yet put on another burst of speed. □



STEEL

The steel industry is heading into another decline.

Steel shipments will fall by as much as 2 million tons in the third quarter. Steel prices and profits can be expected to fall too.

The outlook isn't good, but there have been a few encouraging developments. Steel imports fell from nearly 2 million tons in March to 1.6 million tons in April.

The April imports were the lowest of the year so far, and steel men think the government's voluntary restraints may finally be starting to work.

Shipments of steel service centers were up 0.8 pct in April. Shipments of domestic mills were probably up about 100,000 tons in the month.

Apart from these direct indicators, the general economic reports were favorable. The National Assn. of Purchasing Management reported a strong May increase in activity. Orders for new freight cars rose from 1,252 in March to 1,850 in April.

The overall economy continued to look healthy. The Gross National Product rose at a 3.7 pct rate in the first quarter, and the inflation rate was the lowest in 37 years. Consumer confidence is rising, and home building is brisk.

With all this economic health, the depressed state of the steel industry might seem puzzling. The explanation is that the expansion of the nation's service sector has obscured the contraction of manufacturing. Seventy pct of the nation's employment is now in services and that number is expected to grow to 85 pct in 15 years.

The shift in the economic mix is one reason consumption of steel has fallen from over 110 million tons in 1979 to a current rate of about 90 million tons. The other

factor has been the importing of 13 million tons in the form of autos, machinery and other products made of steel.

Indirect implications of the service expansion are profound. There is little popular indignation over tax proposals calculated to reduce capital spending and bring a further contraction of manufacturing.

It's also worth noting that few services are imported. This could be an illusion, but service workers aren't likely to support strong protectionist measures.

The conflicting interests of the producing and consuming sectors show up in the oil market glut. This has been a devastating thing for a wide range of manufacturers. For consumers, reduced oil prices have been a boon.

The effect of the oil field lag showed up when United States Steel Corp. and Armco Inc. announced they were joining their oil field supply and service divisions into a single venture.

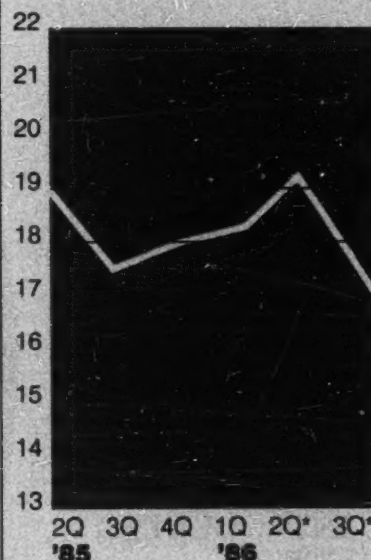
The move reflected "extreme overcapacity in the oil service business." Conditions are so bad that both Japanese and European mills were barred at one point from accepting new U.S. orders for tubular products.

All this is particularly painful to domestic mills because they have been in the process of securing wage concessions from United Steelworkers of America. The tentative agreement of Bethlehem Steel Corp. called for a reduction of \$2.35 an hour in labor costs.

LTV Steel and National Steel Corp. earlier reached agreements that lowered employment costs. As it stands, however, any benefits from these agreements may be passed on to customers in the form of price reductions.

Steel shipments will fall by as much as 2 million tons in the third quarter.

Steel Shipments
In Millions of Tons



Source: AISI
*IA estimate

NONFERROUS

Nonferrous metals prices began edging upward as the second quarter drew to a close, raising the possibility that the producers finally are moving into a position to cut themselves in for a bit of the post-1983 business recovery.

Labor strikes helped firm sentiment on the aluminum and copper markets, but the modest uptrend also was evident in zinc and lead and—to a lesser extent—in nickel and molybdenum.

Shipment and consumption levels generally continued to be firm, albeit with no surprises. And while producers weren't overburdened with surpluses, there weren't any shortages either.

Aluminum market sources were expecting the strike at Aluminum Co. of America's domestic facilities could generate more of a pinch in rolled aluminum than in ingot. Alcoa has been downplaying ingot business for months and late last year scheduled a permanent shutdown of 350,000 metric tons of annual domestic capacity for some time in 1986.

Free market ingot prices wobbled up about 2¢ a lb in the first week of the Alcoa walkout.

Domestic primary aluminum production on the eve of the Alcoa strike was running about 5 pct higher than the end-1985 rate, but was well below year-earlier levels. Going into May, production was nearly 12 pct under the same 1985 period. Industry stocks were heading lower, but at a slower rate than primary production.

Import volume this year has been sharply higher for ingot and scrap, while mill product imports (except for aluminum can stock) have been about on par with 1985. A lot of the increase in ingot imports can be tied to foreign units of the U.S. producers.

Free world primary ingot production was down about 1.7 pct in the first third of the year, thanks mainly to lower U.S. and Japanese production.

The key to short-term price movements appeared to center on the length of the Alcoa strike, with downside movement limited by the gradually tightening producer ingot inventory and upside movement limited by idle capacity that could be reactivated.

Copper prices began edging higher as the second quarter drew to a close. By mid-June, they were back to where they were at the start of the year and poised for movement to new ground. The strike at Noranda's copper and zinc operations nudged hedge market values higher. Consumers had been running on maintenance inventories for some time and there was a degree of nervousness about the approaching June 30 deadline on wage negotiations at several U.S. copper units.

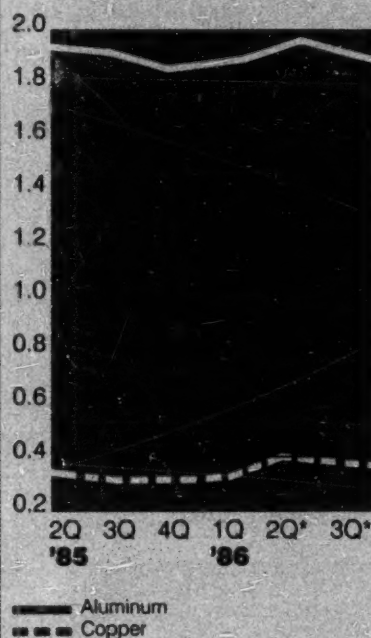
Unlike the aluminum industry, the copper industry often has a major strike before new wage pacts are negotiated.

Zinc prices were showing signs of strength even before the Noranda strike, reflecting fairly strong offtake and a tight rein on production, particularly abroad.

Free market nickel prices began edging upward in early June as the starting date for tandem production and vacation shutdowns scheduled by Inco, Ltd. neared. Metal still was freely available, a situation which held a lid on London Metal Exchange values in the first half of the year as the LME nickel stock climbed by about 18 pct from the end-1985 level. If projected demand levels hold, the Inco cutbacks could start firming prices in the second half.

Labor strikes helped firm sentiment on the aluminum and copper markets.

Nonferrous Metals Shipments
In Millions of Short Tons

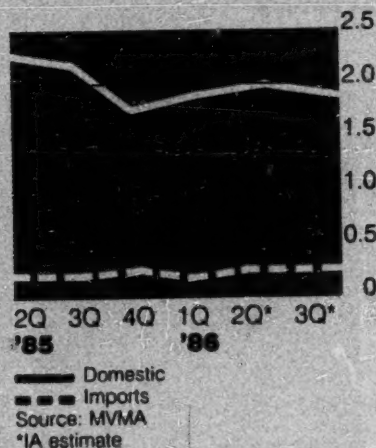


Source: American Bureau of Metal Statistics, Aluminum Assn.
*1A estimate

AUTOMOTIVE; HEAVY EQUIPMENT

U.S. automakers expect to sell 1.9 million cars in the third quarter.

Automotive Sales
In Millions of Units



Heavy Equipment Shipments
In Billions of Dollars



AUTOMOTIVE—U.S. automakers expect to sell 1.9 million cars in the third quarter. That's 300,000 units fewer than in the third quarter of last year, when sales were inflated by the beginning of customer incentives.

Automakers expect sales of imported cars to total 800,000 units in the third quarter, compared with 700,000 in the same period last year.

U.S. automakers produced about 2.17 million cars but sold only 2 million units in the second quarter. That has swollen inventories. To cut dealer stocks, automakers have had to cut production. In the third quarter, they expect to build 1.8 million cars.

Conditions are ideal for selling cars. Consumer confidence remains high, gas prices low and interest rates are lower than they have been in several years.

The yen has strengthened by more than 30 pct since September 1985. But the stronger yen has increased the price of Japanese cars by only 2-3 pct, estimates the sales analyst at one Big 3 automaker.

"Japanese car prices are 10 pct higher in 1986 than in 1985," explained the analyst. "But all car prices rise 3-4 pct each year anyway."

"Dealers used to mark up Japanese cars 10 pct over the sticker price. Now they're marking them up by 5-6 pct."

Particularly frustrating to U.S. automakers is the continued growth of import sales at their expense though the domestic cars cost less. American cars are available for about \$2,500 less than the imports, says one analyst. But Americans still perceive foreign cars as better quality—and worth the higher prices.

HEAVY EQUIPMENT—Farm equipment manufacturers expect to ship about \$2.2 billion in units in the third quarter. That's slightly less than the \$2.3 billion of equipment they shipped in the third quarter of 1985.

Construction-equipment makers, meanwhile, expect to ship \$1.4 billion in units in the third quarter—the same as in the third quarter last year.

Current inventories of farm equipment are high. Dealers have about a year's worth of goods; six to eight months' is considered optimum.

The government buyout of dairy herds is depressing sales of the tractors that farmers use to move their animals' feed and waste. Sales of tractors from 40 to 100 horsepower will drop about 7 pct in 1986 from 1985, estimates the economist of one leading farm-and construction-equipment firm. Sales in that segment were expected to rise this year—until the government began the buyout.

Economists expect sales of tractors under 40 hp to rise by 2-3 pct this year; and those over 100 hp, to decline by 5-10 pct.

In the construction industry, multi-unit nonresidential and housing starts continue strong. "Companies have an incentive to construct more buildings before the tax laws change," explained one economist. The proposed tax laws would reduce depreciation write-offs.

Versatile equipment such as back hoes and excavators should sell well in the third quarter. Crawlers and other equipment used for big projects will sell poorly. That's because government contracts for such projects as sewer and water systems are scarcer in 1986.

MACHINE TOOLS; FLUID POWER

MACHINE TOOLS—The outlook for the immediate future of most of the U.S. machine tool builders is still rather grim despite the broad upturn of the economy. Past forecasts, considered overly pessimistic, are proving to have been conservative.

The picture in this case is incomplete because it reflects primarily the sales of the domestic builders that are members of the National Machine Tool Builders' Association. One industry expert commented that there are about 500 independent machine tool builders in the U.S., but only five of the builders account for nearly 40 pct of the U.S. output.

Iron Age's projections on sales indicates that there may be fewer than 500 U.S. builders in the near future. The ten or twelve leading builders do not appear to be having difficulties, so the projected fall-off in sales will come out of the pockets of the smaller independent builders who can least afford it.

Sales in the third quarter of 1986 are expected to be slow this year because the quarter includes the annual summer slump in machine tool sales as well as the International Machine Tool Show (IMTS) to be held in Chicago, September 3-11.

Sales managers do not accept that as an excuse for not selling, but it is a fact of life. The trend to more regional shows may detract enough from the grand design of the big international shows and thereby lessen the economic impact of the well-established bi-annual introductions of new machines and accessories.

At the end of the second quarter, annual sales for metal cutting and forming machines are projected to decline 6 pct from 1985.

FLUID POWER—Mixed signals best describes the outlook for the fluid power industry at the half way point in 1986.

Reflecting the downturn in many of the nation's capital goods manufacturing businesses, the fluid power industry projects a slowing of its hydraulic sector. Construction equipment, farm machinery, oil field machinery, and machine tools, all heavy users of hydraulic power and control systems, are still down.

On the brighter side, pneumatic systems are doing considerably better. Year-to-year comparisons show that pneumatics grew at a rate of 5 pct, in constant dollars, in 1985, while hydraulic systems sales grew at the rate of 1.8 pct.

This put the average growth range between 2.5 and 2.8 pct while general industrial growth was about 2.1 pct.

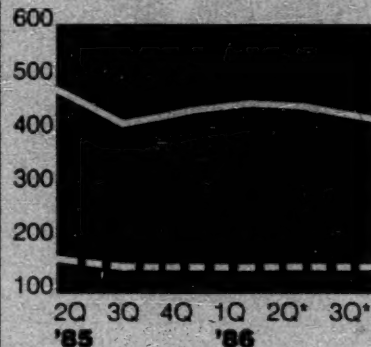
Economic forecasters foresee some growth as the third quarter, begins, with greater growth (but not much greater) in the second half than was experienced in the first half.

For many manufacturing businesses, the nation-wide recovery never seemed to happen as they witnessed solid growth in the service sector, which does not use their products. The traditional capital goods industries are still below their 1979 peaks.

Imports have not yet had any significant direct impact on the fluid power industry. Some fluid power products are being imported in greater numbers at a time when exports of U.S.-produced products are declining. However, it is the indirect imports of finished capital equipment that hurts the most; they are killing off the U.S. manufacturing base that buys fluid power products.

Sales (of machine tools) in the third quarter of 1986 are expected to be slow.

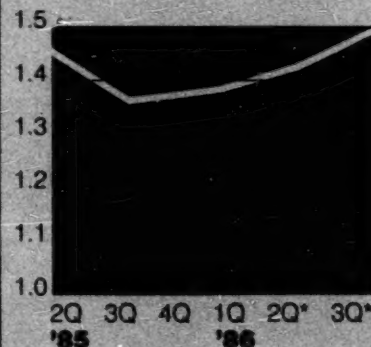
**Machine Tools
Net New Orders**
In Millions of Dollars



— Metalcutting
- - - Metalforming

Source: NMTBA
*IA estimate

Fluid Power, Shipments
In Billions of Dollars



Source: U.S. Dept. of Commerce and NFPA
*IA estimate

COATINGS; PLASTICS

COATINGS—Industrial-coatings companies expect to ship about 83 million gallons of products in the third quarter. That's slightly above the 82 million gallons they shipped in the third quarter last year.

The auto industry, the largest single user of coatings, probably will sell 1.9 million cars in the third quarter—300,000 fewer than in the third quarter last year. The automakers and many other users of coatings usually shut down their plants for several weeks in the summer.

This year the auto industry is beginning a major transition from Zincrometal and other zinc-rich primed steels to electrogalvanized steel. Five new electrogalvanizing lines began operation in the U.S. in the first half of this year.

That will have a major impact on coil coaters. Over the past several years, Zincrometal-type paints have been the largest single segment of coated coil's sales. One-quarter of coated coil has gone to this market.

But coated coil is making continued inroads into the building and appliance industries. Container and packaging companies plan to use more coil, too.

"Metal office furniture and wooden furniture have been excellent markets so far this year and should continue to be good in the third quarter," said a vice president at one major Midwestern coater. Low interest rates are aiding the steady growth in residential and industrial construction.

Coil coaters say they're shipping more products for use in new buildings than last year. Appliances remain a growing market.

The market for coatings on business machines, on the other hand, has plummeted.

PLASTICS—Anticipation of lower resin prices arising from sliding oil prices and lower energy costs generally slowed resin purchases in the opening months of 1986. Some major consumers reportedly were buying only to meet minimum requirements as they watched hydrocarbon feedstock costs come down and pressed their suppliers for pass-throughs.

Producer efforts to nudge prices higher failed early in the second quarter, particularly for high density polyethylene and both low density and linear low density polyethylene. In some cases, this was followed by a spate of discounting.

Downward pressure on styrene and polystyrene developed after benzene and ethylene prices dropped and a late second quarter effort to raise prices on pipe grade PVC resin didn't have much luck, either. Some fabricators of PVC pipe had curbed production in order to bring their own inventories into line.

Popular forecasts for shipments of the six key thermoplastic grades still point upward, although at a slower rate than 1985. A notable exception is ABS, which is slated for a 4 pct gain this year that would recover most of the ground lost in 1985 when shipments were down 7.5 pct.

PVC likewise is projected to rise 3.5 pct this year after a 1.2 pct drop in 1985.

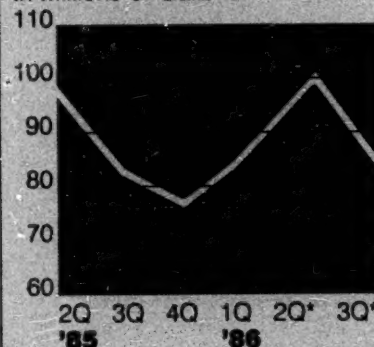
In the aggregate, the projections for the big six point to a 4.5 pct shipment gain this year compared with the 5.3 pct gain registered in 1985.

Early forecasts for 1987 are larger increases across the board, but they are based on a bigger gain in real GNP for the most part.

Coated coil is making inroads into the building and appliance industries.

Industrial Coatings Shipments

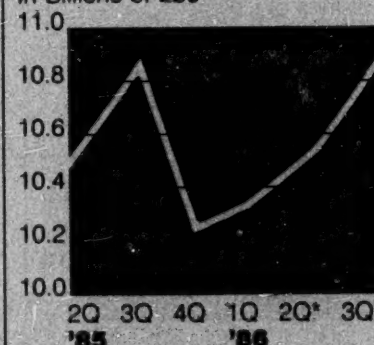
In Millions of Gallons



Source: U.S. Dept. of Commerce
*IA estimate

Plastic Resins Sales & Captive Use

In Billions of Lbs

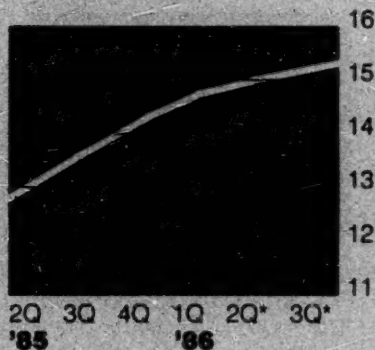


Source: SPI Committee on Resin Statistics as compiled by Ernest & Whinney
*IA estimate

COMPUTERS; INSTRUMENTS & CONTROLS

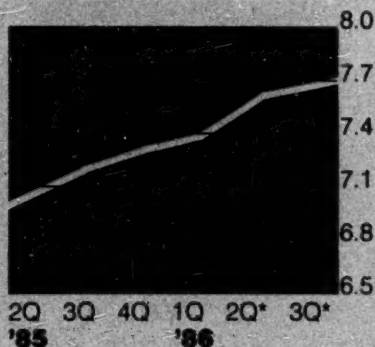
For the third quarter, a 2 pct growth in computer sales is expected.

Computers Shipments
In Billions of Dollars



Source: U.S. Dept. of Commerce
*IA estimate

Instruments & Controls Shipments
In Billions of Dollars



Source: U.S. Dept. of Commerce
*IA estimate

COMPUTERS—Like the flu, the slump the computer industry suffered through last year appears to be lingering on. Expectations were that the second quarter would bring on recovery, but many companies supplying computer equipment are still under the weather.

Computers are no longer a technology that companies must have come hell or high water. For better or worse, computer purchases now are receiving the same scrutiny as other capital equipment purchases. Consequently, computers are subject to the same business cycles that affect spending for other capital goods. Right now that cycle is taking a nose dive.

Capital spending has slowed through the past two years, but never more than now. Capital outlays dropped 14 pct through the first quarter of this year and continued falling in the second quarter. Computers now represent a major portion of the capital equipment in many companies, so drops in capital spending have blunted expected computer growth.

For the third quarter, a 2 pct growth in computer equipment sales is expected. Little evidence exists that orders will perk up this quarter. However, fourth quarter sales could see some improvement as delayed orders finally are processed.

As with other capital equipment, today's management is seeking ways to use available computers more wisely instead of rushing out to embrace the newest computer technology, as was done in the past. Integration—linking isolated computers—is drawing increasing interest as a way to squeeze more out of available technology.

INSTRUMENTS & CONTROLS—Though still not moving rapidly, sales of instruments and controls picked up steam through the first two quarters of 1986. This slow progress will continue in the third and fourth quarters.

First quarter sales rose 1 pct over the fourth quarter 1985 total, and it appears that second quarter sales have topped the first by 1.8 pct. The third quarter should outpace the second by 1.2 pct.

At first glance it would appear that sales of measuring and controlling instruments should be on a down slope.

Capital spending, one benchmark of the industry's demand, has been weak. Likewise, manufacturing capacity utilization, another indicator of the need for instruments and controls, has fallen below 80 pct.

On the positive side, nearly one-quarter of U.S.-made instruments and controls are exported. And the declining value of the dollar against other currencies is helping U.S. products become more competitive overseas.

R&D spending, especially by defense-related industries, remains high. R&D programs are heavy users of instruments. Federal funds targeted for R&D reached \$51 billion in 1985 and could top \$60 billion in 1986.

Also, the housing boom remains in high gear. The appliance industry, which has benefited from that activity, uses instruments to control a variety of functions on their products.

Sales of flaw detection and mechanical testing equipment are on the upswing, as are the sales of aircraft engine instruments due to increased production by both the military and commercial aircraft producers.

APPLIANCES; MATERIAL HANDLING

APPLIANCES—This is one forecast that could make one nervous because each quarter seems to outperform the previous one. While the boom won't last forever, it still appears to be on solid ground and gaining strength.

According to the Association of Home Appliance Manufacturers (AHAM), the major appliance industry shipped over 10.2 million units in the first quarter of 1986, and continued the hot pace with shipments of over 3.7 million units in April. Projections now call for a near-record shipment of 41.4 million units for the year, which is up significantly from forecasts made in 1985. The record sales figure set in 1985 was 41.8 million units.

Continued strength in the sales of new homes and updating older homes' appliances are behind the remarkable performance of the appliance industry. Mortgage rates are relatively low and incomes are rising. Employment is up and so is income. Consumer confidence levels are optimistic.

Sales of different appliances have been taking some wild gyrations in the month-by-month reporting figures. The association issued a caution concerning the data on monthly shipments of microwave ovens, which dropped 22.3 pct in March. Apparently in 1985 there was a delay in reporting figures which raised the 1985 shipment figure and artificially depressed the 1986/1985 figure.

Moderate weather was also blamed for depressing the sales of home comfort appliances during the first quarter and into April.

Looking ahead, AHAM is forecasting sales in 1987 to be about 41.1 million units, with shipment gains in all products except home comfort appliances.

MATERIAL HANDLING—Growth goes on, for the material handling industry, particularly for the hi-tech systems sector.

One industry executive says the steady, though slower pace of the economic recovery will continue to be reflected in both bookings and shipments of equipment.

He estimates that second quarter 1986 bookings will turn out 15 to 17 pct higher than those in the same quarter of last year. For shipments, he figures a 20 to 22 pct jump in the period.

Another sees a further rise in the third quarter—more modest—but still in double-digits.

But a Midwestern manufacturer feels less optimistic about his third quarter sales. He makes conveyors and cranes and, despite the continuing U.S. urge to hype productivity, he thinks his sales will rise only by 5 to 6 pct.

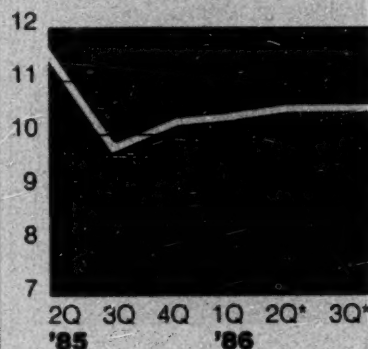
At the other end of the spectrum—those making pallets, for one—business continues to be blunted. Here, the ability to stay afloat, against low profit margins, is often a matter of providing replacement parts. And fork lift truck makers still face stiff overseas competition, despite the weaker dollar.

But the automated storage and retrieval systems makers report strong backlogs, with electronics, food, beverage and automotive customers continuing to clamor for the latest in hi-tech systems. On the other hand, there has been some stalling in getting automated installations working.

One Midwestern manufacturer complained that his systems sales have not been moving as "briskly" as predicted, largely because some companies lack the expertise needed to integrate the new systems into their plants.

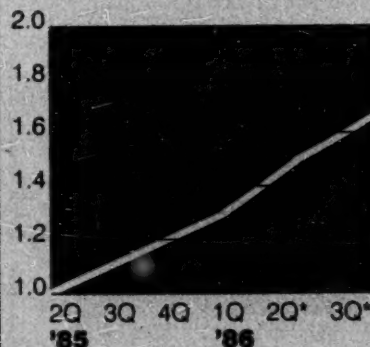
Projections now call for a near-record shipment of appliances for the year.

Appliances, Shipments
In Millions of Units



Source: AHAM
*IA estimate

Material Handling Shipments
In Billions of Dollars

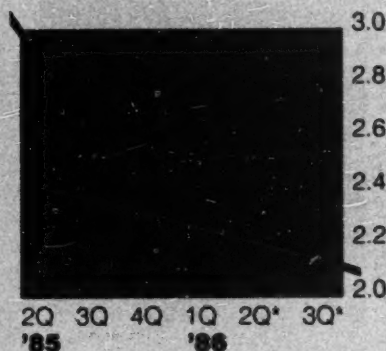


Source: Material Handling Institute
*IA estimate

CASTINGS; FORGINGS

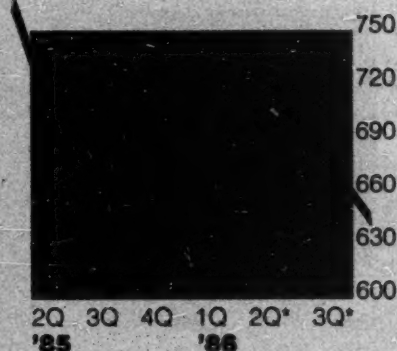
For the foundry industry, the third quarter shows little hope of improvement.

Ferrous Castings Shipments
In Millions of Tons



Source: U.S. Dept. of Commerce
*IA estimate

Impression Die Forgings Shipments
In Millions of Dollars



Source: Forging Industry Assn.
*IA estimate

CASTINGS—If you examine the statistics compiled by the U.S. Dept. of Commerce on ferrous castings, you would be convinced that the U.S. foundry industry had its worst quarter in history from January through March, 1986. There are a number of iron foundries that will dispute those figures. But most of the dissenters are suppliers to the auto industry, which is doing well.

All told, however, the markets for gray, ductile and steel castings did not fare well in the first quarter and do not seem to be doing any better in the second quarter of 1986. The third quarter shows little hope of improving. Only malleable iron castings are showing signs of improvement.

Shipments of ferrous castings dropped 8 pct from the fourth quarter 1985 to the first quarter 1986, but the drop was horrendous from last year's first quarter to this year's. The decrease was 770,000 tons or 33 pct. We are predicting slightly better second and third quarters but certainly no return to 1985 shipments.

Foundrymen note that there are no new business opportunities out there, and that survival is left up to hard work. In other words, one foundry is taking business away from another foundry. There are reports of price cutting here and there. Even in those foundries that are doing well, executives admit that the overall market for ferrous castings is shrinking.

In the auto industry where business is good, there is that fear that the producers of ferrous castings will soon be entering their biggest battle, the war with aluminum castings. In automobiles, at least, it is a battle that the iron foundries may not win.

FORGINGS—Through the first half of 1986, sales of impression die forgings ran close to expectations.

Late last year, the Forging Industry Assn. predicted that 1986 sales would match 1985 totals. By May, orders were running 1 pct above 1985 levels. Last year was not a good one for the industry, so the best that can be said is that at least 1986 is no worse.

The industry is suffering from a depressed U.S. marketplace and increased competition from abroad. Much of its traditional business—from farm equipment and oil field goods manufacturers, for example—has dried up. At the same time, imported forgings are flooding the U.S., both as raw forgings and as parts within finished goods.

The third quarter should see a decline in orders due to usual summer slowdowns and to a fall-off in automobile production. Heavy forging purchases from car and truck manufacturers has been one of the few bright spots for the impression die forging industry over the past two years. Car production, though still strong, is down from last year. Due to over-production in the second quarter and expected increase in import sales in the U.S., auto companies are planning to cut back production—from almost 2.2 million to 1.8 million cars in the third quarter.

If auto production is cooling, aerospace and aircraft production remains hot. Due to the large number of orders for commercial aircraft last year, backlogs will be strong throughout 1986. Military business also remains strong, although growth could be slowing due to pressures to reduce military spending.

WELDING; HEAT TREATMENT

WELDING—Flat may be the best word to describe conditions in the welding industry. There are some strong market segments here and there, like automotive and aerospace, but for the most part, business is slow.

According to welding equipment makers, the first and second quarters of this year are a continuation of the lackluster performance reported for the fourth quarter of 1985.

Sales in this year's second quarter, they add, are down slightly from the same quarter of last year.

Unless something unexpected happens, the third quarter is not likely to be any better.

The weak user industries, such as off-highway construction and oil country, remain weak, but there are a few bright spots. One is the aerospace engine repair business. Another minor prospect is nuclear repair.

The welding distributors, however, are telling another story. The welding supply index compiled by the National Welding Supply Association, Philadelphia, was the highest ever (216.9) in April.

Likewise, the NWSA index for shielding gases (261.3) surpassed the previous high, set this January. The index for filler metals also hit a new high, wiping out the previous record from April 1985.

Again, referring to the NWSA statistics, the first quarter of 1986 posted a 4.5 pct improvement over the same period of last year and a 2.9 pct increase over the fourth quarter of 1985. *Iron Age* estimates that welding distributor shipments will climb another 5 pct in the second quarter, then up again just a fraction of a percent in the third quarter.

HEAT TREATMENT—The commercial heat treaters are holding their own. Unfortunately, the same cannot be said for the makers of heat processing equipment.

The commercial heat treaters billings in the first quarter dipped \$4.4 million from the fourth quarter but were up \$3.4 million from the same period a year earlier.

The rebound continued in the second quarter for commercial heat treaters, but a seasonal dip is expected to weaken the third quarter slightly. One heat treater is cautiously optimistic about the rest of the year and notes that September will be the key month.

Geographically, Detroit, the East, Southeast and the West Coast are all busy areas. Weak are the Midwest and Southwest.

Automotive, aerospace, aircraft and defense are all good, but oil field equipment, once a major market for commercial heat treaters, "is just plain terrible."

Over on the heat processing equipment side, orders plummeted about \$30 million, or more than 32 pct from the first quarter of 1985 to the first quarter of this year. By comparison, the drop between the fourth quarter of 1985 to the first quarter of 1986 was only about 7½ pct.

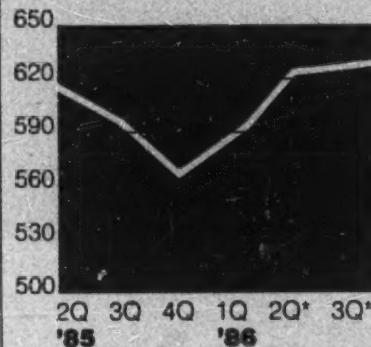
One executive of a heat processing equipment company sees the second quarter showing some improvement over the first quarter, then a third quarter resembling the first quarter of 1986.

"We had been getting orders from the defense industry," he said, "but even that business seems to be tapering off."

Both heat treaters and the builders of heat processing equipment are concerned that strikes will have an impact on third quarter business in some key markets.

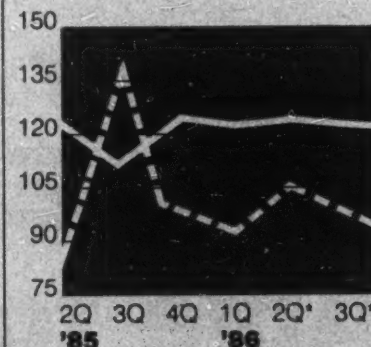
There are some strong segments in the welding market, but for the most part, business is slow.

Welding Shipments



Index 100 = \$200 million in distributor sales
Source: National Welding Supply Assn.
*IA estimate

Heat Treatment In Millions of Dollars

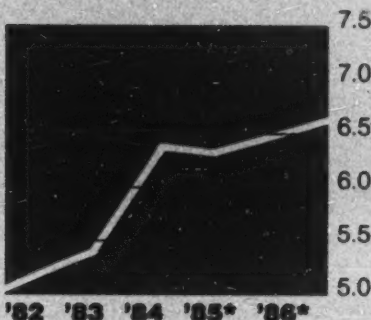


— Sales of Commercial Heat Treaters
- - - Heat Processing Equipment Orders
Source: Industrial Heating Equipment Assn., Metal Treating Institute
*IA estimate

STAMPINGS; FASTENERS

Autos, the stamping industry's largest market, probably will fall short of the second-quarter mark.

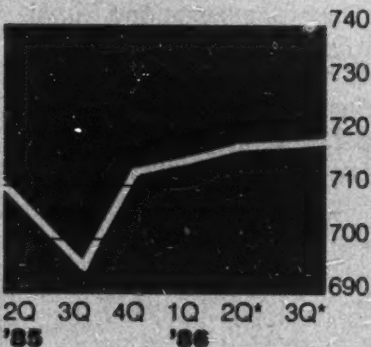
Stampings Shipments
In Millions of Dollars



Based on the average of a control group whose shipments total more than \$500 million annually.

Source: American Metal Stamping Assn.
*IA estimate

Fasteners, Sales
In Millions of Dollars



Source: Industrial Fasteners Institute
*IA estimate

STAMPINGS—Look for consumers to continue their spending spree through the upcoming third quarter, to the pleasure of the stamping industry.

Orders for the year-to-date stand 3 pct higher than the same period of last year.

Shipments, meanwhile, rose 11 pct in April compared with March 1986, and were up 9 pct this April vs. last April. Industry backlogs through April were off 1 pct from year-ago rolling averages.

Industry officials expect orders and shipments to plateau at these increases in this quarter.

Demand from the automakers, the stamping industry's largest market, probably will fall short of the second-quarter mark, despite cheaper financing and gasoline.

A Midwestern stamper noted the upsurge in recreational vehicle sales.

Stamping orders from computer manufacturers continue to tail off, industry members say, but the medical equipment market remains busy.

The boom in housing construction has spurred appliance sales and the consequent demand for stampings from the appliance makers. Interestingly, the active housing market has also accelerated the moving truck business, building demand for new and revamped truck fleets.

Stamper complaints? One in the East grumbled about a low tide in cash flow and a "pervasive paucity" of capital funds.

On the other hand, an executive at a Midwestern precision stamping firm, supplying automotive, construction, electronics and appliance markets, said his firm is expanding its manufacturing, anticipating a continuing "strong growth trend."

FASTENERS—The fastener industry may not be shooting off fireworks this July Fourth, but those who make custom-formed parts may be lighting a Roman Candle or two.

One such executive reported his first quarter 1986 orders were about 14 pct higher than first quarter of last year, and he anticipated another 7 to 8 pct order increase from the first to the second quarter of this year.

Aerospace is his trump card, so he probably won't be disappointed, despite the depressed states of the oil country, energy and farm equipment markets.

Another specialty fastener maker sees his third quarter orders as "more or less" holding the pattern of the second quarter.

A Midwestern fastener maker reported some new business from mobile housing, mostly for temporary dwellings in devastated areas, and the earlier pickup in sales of RVs was noted, which has sparked some demand for engineered fasteners.

That's the good news.

The bad news is that there is still no good news about "standards"—bolts, screw, washers or rivets.

Imports from Japan, South Korea, Taiwan and Germany continue to pour into the U.S. in record amounts, and increasing the drop-out rate among mechanical fastener manufacturers.

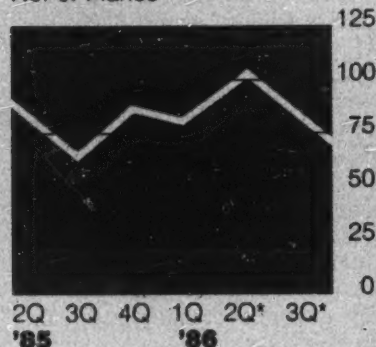
But in any group there's always at least one iconoclast. Last September, one company said it was finishing a \$25 million facility in order to begin producing steel fasteners and expected to be in peak production of 40,000 tons a year by late 1987. It intends to buck the tide of imports with automation.

AIRCRAFT

The outlook for the aircraft companies looks better in the commercial sector.

Commercial Airplane Deliveries

No. of Planes



Source: Airbus Industrie, Boeing and McDonnell-Douglas
*IA estimate

The outlook for the aircraft companies looks a lot better in the commercial sector than it does on the military side, where Gramm-Rudman and revived Pentagon interest in expenditure control are holding the lid down.

The trend line points downward for military aircraft from the \$23 billion spent in fiscal 1985 to fiscal 1987's budgeted \$17.5 billion.

Meanwhile, the commercial jet aircraft business should continue to percolate. As had been expected, the incoming order rate dipped in the first quarter to 135 from the spectacular 257 registered for the final 1985 period. However, first quarter orders were still well ahead of deliveries, which at 80 jetliners were a bit slower than had been anticipated. This just added to an already comfortable backlog that had jumped nearly 43 pct in 1985.

Early projections of deliveries by Boeing, McDonnell-Douglas and Airbus in 1986 range between

339 and 346 (the difference reflecting varying estimates for Boeing ranging between 233 and 240), compared with the 313 jetliners delivered in 1985.

The general aviation sector got

off to a slow start in 1986. Jet shipments fell to 16 in the first quarter from 30 in the same 1985 period and first quarter deliveries of turboprops plummeted to 33 from 73 in the same 1985 period.



MATERIALS PRICES

PRICE & PRODUCTION DATA

(Effective June 16, 1986)

Steel production by districts, thousands of tons
(000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
Northeast Coast	172	185	184	186
Pittsburgh	213	221	241	231
Youngstown	97	97	105	80
Lake Erie	92	95	163	141
Detroit	148	122	149	162
Chicago	407	404	509	492
Midwest	178	171	170	171
Southern	189	200	205	235
Western	83	82	88	99
U.S. Production	1,579	1,577	1,814	1,799

Source: American Iron & Steel Institute

Lake Superior Ore Prices

\$1.50% Fe Natural delivered lower lake ports unless otherwise stated. Rail transportation, handling and unloading may be charged to buyer. Coarse ore 80% premium.

Pellets (per iron unit natural)	gross-ton 58.0*
Pellets (per iron unit natural)	gross-ton 59.4**
Pellets (per iron unit natural)	gross-ton 72.5-86.9***
Mesabi, regular-unscreened	gross-ton \$32.53
Mesabi, non-bessemer	gross-ton \$30.03-31.53

*58.0%—Mineral Services, Inc. as of 8/13/85. **59.4%—Pickands Mather, 8/1/85, delivered hold of vessel, upper lake ports. ***72.5%—U.S. Steel as of 8/16/85. 86.9%—Oglebay No. 3/25/82; Hanna Mining and Cleveland-Cliffs, 2/26/82.

STEEL PRODUCTION, COMPOSITE PRICES

(Effective June 16, 1986)

	Last Week	Two Weeks Ago	To Date 1986	To Date 1985
U.S. Steel Production				
Net tons, in thousands	1,579	1,577	41,424	40,844
Capability Utilization Rate	63.8	63.8	70.7	67.2

Composite Prices

	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base*				
(¢/lb.—eff. 5/19/86)	24.850	24.850	24.607	27.582
Pig Iron** (Net ton = 2000 lbs.)	\$213.00	\$213.00	\$213.00	\$213.00
Scrap No. 1 hvy.*** (Gross ton = 2240 lbs.)	\$ 70.83	\$ 70.83	\$ 73.17	\$ 66.17
No. 2 bundles	\$ 51.50	\$ 51.50	\$ 52.83	\$ 47.17

Scrap Comparison (Gross Ton)

No. 1 steel, Pittsburgh	\$ 69.50	\$ 69.50	\$ 73.50	\$ 70.50
No. 1 steel, Philadelphia	71.50	71.50	71.50	66.50
No. 1 steel, Chicago	71.50	71.50	74.50	61.50
No. 1 bundles, Detroit	57.50	57.50	62.50	59.50
Low Phos., Youngstown	68.50	68.50	73.50	57.50
No. 1 mach'y cast., Pgh	73.50	73.50	73.50	71.50
No. 1 mach'y cast., Phila	93.50	93.50	93.50	91.50
No. 1 mach'y cast., Chi	105.50	105.50	109.50	99.50

*Finished Steel Composite: Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.

**Pig Iron Composite: based on average prices for basic and foundry pig iron at representative producing points within U.S.

***Steel Scrap Composite: Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

NONFERROUS PRICES

(Effective June 16, 1986) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated.

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum (LME)	54.38	54.33	6/16/86
Copper (C)	67.00- 69.00	67.50- 69.00	6/10/86
Lead	23.00	22.50- 23.00	6/16/86
Magnesium Ingot	153.00	148.00	12/ 9/85
Nickel (LME)	187.84	182.81	6/16/86
Zinc	38.00- 41.00	38.00	6/12/86

ALUMINUM: Avg. for last week & previous week. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig, delivered. NICKEL: Avg. for last week & previous week. ZINC: high grade.

Antimony, American Laredo, Texas	\$2.00
Beryllium-aluminum 5% Be, per lb. contained Be	\$236.00
Beryllium-copper, per lb. cont. Be	\$144.00
Beryllium 97% powder 200	\$197.00
Cadmium, ton lots	\$1.00
Calcium, ton lots, crown	\$3.92
Chromium, 99.5% electro	\$4.62
Cobalt, 99%, cathode	\$11.70
Gold per troy oz.	\$339.55
Indium, dollars per troy oz.	\$2.65
Iridium, dollars per troy oz.	\$420.00
Magnesium sticks, 10,000 lbs.	\$2.02
Mercury, per 7.6-lb., f.o.b. N.Y.	\$270.00-285.00
Molybdenum, lb. tech. moly oxides, 20 lb. MO can	\$3.25
Palladium, per troy oz.	\$112.00

Platinum, per troy oz.	\$421.00
Rhodium, per troy oz.	\$1,160.00
Silver, govt. per troy oz.	\$5.105
Titanium sponge, melt grade	\$3.40-3.55
Tungsten powder, hyd red.	\$9.50-9.85
Vanadium	\$6.00
Zirconium sponge	\$12.00-17.00

(Per lb. unless otherwise noted)

Strait Tin Price

(U.S. cents per lb. EX-SMELTER, based on daily market in Kuala Lumpur in Malaysian dollars per kilo.)

June 9—Holiday	June 12—245.51
June 10—Holiday	June 13—247.27
June 11—245.19	

Scrap Prices

Brass Mill Scrap

(Cents per lb.; over 20,000 lbs. add 1¢ per lb.)

	Solids	Turnings
Copper	62	53 1/2
Yellow brass	52 1/2	46 1/2
Red brass	57	49
Comm. bronze	58 1/2	50
Mang. bronze	42 1/4	41 1/4
Free cutting rod ends	49	48

Custom Smelters Scrap

(Cents per lb., cold-rolled lots, del. refinery)

No. 1 copper wire	58
No. 2 copper wire	50
Light copper	41

Ingot Makers Scrap

(Cents per lb., cold-rolled lots, del. refinery)

No. 1 copper wire	54
No. 2 copper wire	46
Light copper	37
No. 1 composition	46
No. 1 comp. turnings	45
Hvy. yellow brass solids	30
Hvy. yellow brass turnings	26
Radiators	34

Aluminum		
New mixed clips	32	— 33
Old sheet	29	— 30
Old cast	29	— 30
Clean dry borings	30	— 31

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	28	— 29
Mixed L.C. clips	26	— 27
Old sheets and cast	24	— 25
Borings and turnings	20	— 21
Duraluminum clippings	24	— 25

Copper and Brass

No. 1 copper wire	48	— 49
No. 2 copper wire	39	— 40
Light copper	33	— 34
Radiators	30	— 31
No. 1 composition	39	— 40
No. 1 composition turnings ..	35	— 36
Cocks and faucets	26	— 29
Clean heavy yellow brass	27	— 28
Brass pipe	28	— 29
New soft brass clippings	39	— 40

Lead

Heavy soft lead	5	— 7
Whole batteries	1	— 3
Type metal	15	— 17
Electrotype	13	— 14

Nickel

Nickel solids	110	— 120
Nickel rod ends	110	— 120
Nickel sheets, clips	110	— 120
Nickel turnings	25	— 35

Zinc

New zinc clippings	15	— 16
Old diecast zinc	11	— 12

EFFECTIVE JUNE 16, 1986

(Effective June 16, 1986) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of Iron Age editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	\$59.00 to	\$70.00
No. 2 hvy. melting	59.00 to	60.00
No. 1 dealer bundles	83.00 to	84.00
No. 1 factory bundles (auto)	85.00 to	86.00
No. 2 bundles	45.00 to	47.00
No. 1 busheling	8.00 to	9.00
Machine shop turnings	43.00 to	44.00
Shoveling turnings	42.00 to	43.00
Cast iron borings	79.00 to	100.00
Low phos. punchings plate	59.00 to	60.00
Heavy turnings	80.00 to	81.00
No. 1 88 hvy. melting	93.00 to	94.00
Balls, 2 ft. and under	78.00 to	79.00
Scrap rails, random lgh	93.00 to	94.00
88 specialties	73.00 to	74.00
No. 1 machinery cast	46.00 to	47.00
Cupola cast	30.00 to	31.00
Heavy breakable cast		
Stainless		
18-8 bundles and solids	320.00 to	330.00
18-8 turnings	420.00 to	430.00

Chicago

No. 1 hvy. melting	\$71.00 to	\$72.00
No. 2 hvy. melting	67.00 to	68.00
No. 1 dealer bundles	82.00 to	83.00
No. 1 factory bundles (auto)	78.00 to	79.00
No. 2 dealer bundles	56.00 to	57.00
No. 1 busheling	77.00 to	78.00
Shredder scrap	27.00 to	28.00
Machine shop turnings	22.00 to	23.00
Mixed borings and turnings	29.00 to	30.00
Shoveling turnings	41.00 to	42.00
Cast iron borings	97.00 to	98.00
Low phos. large crop		
Low phos. punchings plate	112.00 to	113.00
1/4 in. and heavier	106.00 to	107.00
No. 1 88 hvy. melting	75.00 to	76.00
Scrap rails random lgh	79.00 to	80.00
Roller rails	104.00 to	105.00
Balls, 2 ft. and under	99.00 to	100.00
88 car wheels	90.00 to	91.00
No. 1 machinery cast	105.00 to	106.00
Cupola cast	92.00 to	93.00
Stove plate	97.00 to	98.00
Steel car wheels	87.00 to	88.00
Stainless		
18-8 bundles and solids	485.00 to	495.00
18-8 turnings	400.00 to	410.00
430 bundles and solids	125.00 to	135.00
430 turnings	85.00 to	95.00

Philadelphia

No. 1 hvy. melting	\$70.00 to	\$73.00
No. 2 hvy. melting	62.00 to	63.00
No. 1 dealer bundles	80.00 to	83.00
No. 2 dealer bundles	50.00 to	53.00
No. 1 busheling	80.00 to	81.00
Shredder scrap	82.00 to	85.00
Machine shop turnings	24.00 to	27.00
Mixed borings and turnings	24.00 to	27.00
Shoveling turnings	37.00 to	40.00
Low phos. 5 ft. and under	74.00 to	77.00
Electric furnace bundles	93.00 to	96.00
88 specialties	81.00 to	84.00
Balls, 2 ft. and under	74.00 to	77.00
Cupola cast	94.00 to	97.00
Heavy breakable cast	85.00 to	88.00
No. 1 machinery cast	53.00 to	56.00
	72.00 to	75.00

Detroit

Brokers buying prices per gross ton on cars:		
No. 1 hvy. melting	\$47.00 to	\$49.00
No. 2 hvy. melting	46.00 to	47.00
No. 1 dealer bundles	57.00 to	58.00
No. 2 dealer bundles	28.00 to	29.00
No. 1 busheling	56.00 to	57.00
Drop large bushings	38.00 to	39.00
Machine shop turnings	27.00 to	28.00
Mixed borings and turnings	8.00 to	9.00
Shoveling turnings	27.00 to	28.00
Cast iron borings	18.00 to	19.00
Heavy breakable cast	31.00 to	32.00
Mixed cupola cast	44.00 to	47.00
Automobile cast	70.00 to	71.00
Stainless		
18-8 bundles and solids	480.00 to	490.00
18-8 turnings	335.00 to	355.00
430 bundles and solids	115.00 to	125.00

Youngstown

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	\$54.00 to	\$55.00
No. 2 hvy. melting	52.00 to	53.00
No. 1 dealer bundles	67.00 to	68.00
No. 2 dealer bundles	31.00 to	32.00
Machine shop turnings	19.00 to	20.00
Shoveling turnings	19.00 to	20.00
Low phos. plate	68.00 to	69.00
Electric furnace bundles	57.00 to	58.00
Galvanized bundles	55.00 to	56.00

Cleveland

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	\$52.00 to	\$53.00
No. 2 hvy. melting	52.00 to	51.00
No. 1 dealer bundles	70.00 to	71.00
No. 1 factory bundles	44.00 to	45.00
No. 2 bundles	29.00 to	30.00
No. 1 busheling	42.00 to	43.00
Machine shop turnings	19.00 to	20.00
Shoveling turnings	19.00 to	20.00
Cast iron borings	17.00 to	18.00
Car structural & plates, 5 ft. and under	63.00 to	64.00
Car structural & plates, 5 ft. and under	85.00 to	86.00
Low phos. punchings plate	85.00 to	86.00
Foundry steel, 2 ft. and under	51.00 to	52.00
No. 1 88 hvy. melting	57.00 to	58.00
Balls, 2 ft. and under	86.00 to	87.00
Balls, 18 in. and under	88.00 to	89.00
No. 1 machinery cast	77.00 to	78.00
Mixed cast	44.00 to	45.00
Stainless		
18-8 bundles	480.00 to	490.00
18-8 turnings	350.00 to	360.00
430 bundles	120.00 to	130.00

Buffalo

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	\$50.00 to	\$51.00
No. 2 hvy. melting	40.00 to	41.00
No. 1 busheling	46.00 to	47.00
No. 1 dealer bundles	64.00 to	67.00
No. 2 bundles	29.00 to	30.00
Machine shop turnings	13.00 to	14.00
Mixed borings and turnings	13.00 to	14.00
Shoveling turnings	19.00 to	20.00
Cast iron borings	23.00 to	24.00
Low phos. plate	74.00 to	75.00
Structural and plate, 2 ft. and under	75.00 to	76.00
Balls, 2 ft. and under	75.00 to	76.00
Scrap rails, random lgh	61.00 to	62.00
No. 1 machinery cast	74.00 to	75.00
No. 1 cupola cast	71.00 to	72.00

St. Louis

No. 1 hvy. melting	\$67.00 to	\$68.00
No. 2 hvy. melting	52.00 to	53.00
No. 1 busheling	79.00 to	80.00
No. 1 dealer bundles	77.00 to	78.00
No. 2 bundles	46.00 to	47.00
Machine shop turnings	17.00 to	18.00
Shoveling turnings	21.00 to	22.00
Cast iron borings	27.00 to	28.00
No. 1 88 hvy. melting	73.00 to	74.00
Balls, random lgh	74.00 to	75.00
Balls, 18 in. and under	97.00 to	98.00
88 specialties	74.00 to	75.00
Cupola cast	49.00 to	50.00
Heavy breakable cast	43.00 to	44.00
Stove plate	89.00 to	90.00
Steel car wheels	78.00 to	79.00
Rolling rails	99.00 to	100.00
Unstripped motor block	54.00 to	55.00

Birmingham

No. 1 hvy. melting	\$68.00 to	\$69.00
No. 2 hvy. melting	64.00 to	65.00
No. 1 dealer bundles	68.00 to	69.00
No. 2 bundles	44.00 to	45.00
No. 1 busheling	86.00 to	87.00
Shredder scrap	23.00 to	24.00
Machine shop turnings	36.00 to	37.00
Shoveling turnings	36.00 to	37.00
Cast iron borings	36.00 to	37.00
Electric furnace bundles	65.00 to	66.00
Elec. furnace, 3 ft. and under	68.00 to	69.00
Structural and plate, 2 ft.	87.00 to	88.00
Structural and plate, 4 ft.	81.00 to	82.00
No. 1 88 hvy. melting	81.00 to	82.00
Scrap rails, random lgh	70.00 to	71.00
Balls, 2 ft. and under	85.00 to	86.00
Angles and splice bars	81.00 to	82.00
No. 1 cupola cast	82.00 to	83.00
Unstripped motor blocks	72.00 to	73.00

Cincinnati

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	\$50.00 to	\$51.00
No. 2 hvy. melting	49.00 to	50.00
No. 1 dealer bundles	64.00 to	65.00
No. 2 bundles	32.00 to	33.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	12.00 to	13.00
Cast iron borings	19.00 to	20.00
Low phos. 18 in. and under	75.00 to	76.00
Balls, random lgh	59.00 to	60.00
Balls, 2 ft. and under	75.00 to	76.00
No. 1 cupola cast	64.00 to	65.00
Heavy breakable cast	25.00 to	26.00
Drop broken cast	68.00 to	69.00

New York

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	\$40.00 to	\$42.00
No. 2 hvy. melting	33.00 to	34.00
No. 2 dealer bundles	20.00 to	24.00
Mixed borings and turnings	10.00 to	11.00
Machine shop turnings	1.00 to	6.00
Shoveling turnings	10.00 to	12.00
Clean cast, chem. borings	35.00 to	36.00
No. 1 machinery cast	79.00 to	80.00
Mixed yard cast	50.00 to	51.00
Heavy breakable cast	10.00 to	12.00
Stainless		
18-8 prepared solids	440.00 to	460.00
18-8 turnings	340.00 to	360.00
430 prepared solids	90.00 to	100.00
410 solids	75.00 to	85.00

Boston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	\$49.00 to	\$51.00
No. 2 hvy. melting	39.00 to	41.00
No. 1 dealer bundles	50.00 to	52.00
No. 2 bundles	32.00 to	34.00
No. 1 busheling	54.00 to	58.00
Shredder scrap	59.00 to	61.00
Machine shop turnings	12.00 to	14.00
Shoveling turnings	18.00 to	20.00
No. 1 machinery cast	72.00 to	77.00
Mixed cupola cast	44.00 to	46.00
Heavy breakable cast	8.00 to	10.00

San Francisco

No. 1 hvy. melting	\$40.00 to	\$42.00
No. 2 hvy. melting	34.00 to	36.00
No. 1 dealer bundles	31.00 to	33.00
No. 2 dealer bundles	20.00 to	21.00
Machine shop turnings	8.00 to	9.00
Cast iron borings	8.00 to	9.00
No. 1 cupola cast	80.00 to	82.00

Los Angeles

No. 1 hvy. melting	\$34.00 to	\$36.00
No. 2 hvy. melting	28.00 to	30.00
No. 1 dealer bundles	26.00 to	28.00
No. 2 dealer bundles	14.00 to	18.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	10.00 to	11.00
Cast iron borings	8.00 to	9.00
Elec. furnace, 1 ft. and under (foundry)	67.00 to	69.00
No. 1 cupola cast	72.00 to	74.00

Seattle

No. 1 hvy. melting	60.00 to	62.00
No. 2 hvy. melting	51.00 to	53.00
No. 2 bundles	35.00 to	37.00
No. 1 cupola cast	89.00 to	90.00
Mixed yard cast	90.00 to	92.00

Hamilton, Ont.

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	\$74.00
No. 2 hvy. melting, cu 2 ft. and under	67.00
No. 1 dealer bundles	82.00
No. 2 bundles	58.00
Mixed steel scrap	56.00
Busk. new fact. prep'd	77.00
Busk. new fact. unprep'd	60.00
Machine shop turnings	30.00
Short steel turnings	30.00
Mixed borings and turnings	19.00
Cast scrap	92.00

Houston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	\$59.00 to	\$60.00
No. 2 hvy. melting	49.00 to	50.00
No. 2 bundles	35.00 to	36.00
Machine shop turnings	11.00 to	12.00
Crushed turnings	94.00 to	95.00
Shredder scrap	70.00 to	71.00
Car structural plate, 2 ft. and under	91.00 to	92.00
Car structural plate, 5 ft. and under	70.00 to	71.00
Unstripped motor blocks	54.00 to	55.00
Cupola cast	81.00 to	82.00

ORDERS SOFTNESS STILL HOLDS

Through most of last year, orders received by durable goods producers were on a treadmill.

This year, through April, the latest month of complete data, the treadmill seems to have kicked into slow reverse.

Orders in April totaled \$104.5 billion. This dollar volume was off \$200 million from March. And the April dip marked the third straight month of decline. April orders, in inflation-adjusted dollar volume, were off about 5 pct from the volume in the opening month of the year.

Where's the big weakness?

In orders, the product group showing the greatest weakness was office and computing machines (SIC 357). At \$13.2 billion, these orders were down 30 pct from the year-ago same four-month period. Another soft spot was in orders for metalworking machinery (SIC 354), which at \$3.3 billion, were down 13 pct.

For the product lines that showed the greatest strength in the January-April period, the credit must go to the Pentagon.

Orders for ships and military tanks (SIC 3731,95), at \$4.5 billion, were up 142 pct. Aircraft, missiles and parts (SIC 372,6), at \$38 billion, were up 38 pct.

The orders pattern of big gains in some product lines and big declines in others, resulted in a small increase for total durables orders in the opening four-month period. Total orders came to \$432.8 billion and were up 4.2 pct. That would come out to an estimated 2.8 pct gain when adjusted for inflation.

Some executives in durable goods industries are holding out hope that a settling of matters on the tax bill might release a lot of backed-up orders. That remains to be seen.

